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Heart Failure and Cardiomyopathies

PREDICTORS OF MORTALITY AND GENDER DIFFERENCES IN TAKOTSUBO CARDIOMYOPATHY

Poster Contributions
Hall C
Saturday, March 29, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Heart Failure and Cardiomyopathies: Diagnostic, Prognostic and Therapeutic Strategies in Cardiomyopathies
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Background: Takotsubo cardiomyopathy (TC) is more common in females. However, predictors of mortality and gender differences in mortality are not well established. Hence, we wanted to determine the predictors of mortality as well as any gender differences in patients with TC.

Methods: Using the Nationwide Inpatient Sample (NIS), adult patients with a diagnosis of TC were identified according to the 9th revision of International Classification of Diseases (ICD9 429.83). We also identified acute severe illnesses, traditional cardiovascular and non-cardiovascular risk factors for TC. Categorical data was analyzed by Pearson's chi square test and continuous data was expressed as measures of central tendency. Stepwise logistic regression analysis was done to determine predictors of in-hospital mortality.

Results: TC constituted 0.03% (n=13,804) of all in-hospital discharge. Men were younger (62 versus 67 years, p<0.001) and had a longer hospitalization (8.2 versus 6 days, p=0.002) compared to women. Men also had higher in-hospital mortality (10.5% versus 3.7%; p<0.001) and sudden cardiac death (4.4% versus 1.8%, p = 0.002) compared to women. Acute severe illnesses such as sepsis (15% versus 7%, p<0.001), acute respiratory failure (28% versus 18%, p<0.001) and acute renal failure (20% versus 11%, p<0.001) were also more common in men compared to women. Female sex (OR 0.34, p<0.001) and dyslipidemia (OR 0.46, p=0.006) was associated with lower mortality after adjusting for demographics, traditional risk factors and acute critical illnesses. As expected, acute critical illnesses namely sepsis (OR 3.91, p<0.001), acute renal failure (OR 1.90, P=0.02), acute CVA (OR 6.46, p<0.001) and acute respiratory failure (OR 6.04, p<0.001) predicted higher mortality in multi model adjusted regression analysis

Conclusion: TC was present in 0.03% of all hospital discharge in the United States. Although TC occurs mostly in women, when present in men it is associated with higher mortality and sudden cardiac death possibly due to increased prevalence of acute critical illnesses in men. Also, dyslipidemia and female gender were associated with reduced in-hospital mortality.